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Best in health care.

February 1, 2022

Dear: Water System Operator

**Re: Annual Reporting Requirements for Permitted Water Systems**

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Please find enclosed a copy of the 2021 Range Report for your water system. This report contains a summary of the bacteriological water quality results for the samples submitted through Fraser Health from your water system within the 2021 calendar year. As per the Drinking Water Protection Act the report is required to be made available to all users by June 30<sup>th</sup> 2022.

**Please email [HPLand@fraserhealth.ca](mailto:HPLand@fraserhealth.ca) if you would like to request a copy of the Annual Report Template.**

The following are reminders for all water system operators:

- a) As drinking water testing has been deemed an essential service, all health units continue to remain open for sample drop-off on their regular designated days.
- b) Please do not use expired requisition forms as this will result in the samples either not being processed or results not being returned properly from the lab. Please discard all expired requisition forms. The expiration date is located on the bottom of the form.
- c) Please do not modify sample sites or other sections on the requisition forms. Key information is contained in the barcode and the lab is unable to include handwritten information. Please contact [HPLand@fraserhealth.ca](mailto:HPLand@fraserhealth.ca) to request any changes to your requisition forms.
- d) Ensure the lead flush message provided is included with your Annual Report.
- e) The coding system from BCCDC has recently changed.

**QRWRT** indicates that the sample exceeded the 30 hour hold time. This could be due to courier issues or an incorrect date being recorded by the operator on the requisition forms. Water systems will still be given credit for the sample collected and a qualitative result is provided to Fraser Health. If there is bacteria detected, a separate email will be sent to the operator from Fraser Health.

**REJCT DELAY3** indicates that the sample has been rejected as it has been too long in transit. No results will be provided for this sample.

Sincerely,

Drinking Water Program  
Fraser Health Authority  
[HPLand@fraserhealth.ca](mailto:HPLand@fraserhealth.ca)

Fraser Health Authority  
Health Protection

Suite 400 2777 Gladwin Rd  
Abbotsford BC  
V2T 4V1 Canada

Tel (604) 870-7900  
Fax (604) 852-1558  
[www.fraserhealth.ca](http://www.fraserhealth.ca)



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February 1, 2022

*Water System Operators*

**Re: Metals in Drinking Water – “Flush” Message in Annual Reports**

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Fraser Health has recently revised its metals at the tap “Flush” message and we are asking all water systems to please include the following health message with your next annual reports to your users.

***Anytime the water in a particular faucet has not been used for six hours or longer, “flush” your cold-water pipes by running the water until you notice a change in temperature. (This could take as little as five to thirty seconds if there has been recent heavy water use such as showering or toilet flushing. Otherwise, it could take two minutes or longer.) The more time water has been sitting in your home’s pipes, the more lead it may contain.***

***Use only water from the cold-tap for drinking, cooking, and especially making baby formula. Hot water is likely to contain higher levels of lead.***

***The two actions recommended above are very important to the health of your family. They will probably be effective in reducing lead levels because most of the lead in household water usually comes from the plumbing in your house, not from the local water supply.***

***Conserving water is still important. Rather than just running the water down the drain you could use the water for things such as watering your plants.***

If you have any questions, please contact our Drinking Water Program at 604-870-7903.

Sincerely,

Drinking Water Program  
Fraser Health Authority  
HPLand@fraserhealth.ca

Fraser Health Authority  
Health Protection

Suite 400 2777 Gladwin Rd  
Abbotsford BC  
V2T 4V1 Canada

Tel (604) 870-7900  
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www.fraserhealth.ca

## DRINKING WATER SYSTEM ANNUAL REPORT

**Reporting Period:** January 1<sup>st</sup> to December 31<sup>st</sup>, 2021

**Water System** Morris Valley Bulk Water System

**Water System Owner** Fraser Valley Regional District

**Primary Contact Name** (Operator or Manager) Dave Roblin

**Phone Number** (Operator or Manager) 604 702 5027

**E-mail** (Operator or Manager) droblin@fvrd.ca

## DESCRIBE YOUR WATER SUPPLY SYSTEM

**What is the Source(s) of Raw Water?**

Deep Well       Shallow Well       Surface Water       Other

If other, specify details:

**Does the Drinking Water System have Primary Disinfection?**       Yes       No

Chlorination       Ultraviolet Light       Ozone       Other

If other, specify details:

**Does the Drinking Water System have Secondary Disinfection?**       Yes       No

Chlorination       Other

If other, specify details:

**Does the Drinking Water System have Filtration?**       Yes       No

Check all boxes that apply

Cartridge Filter(s)       Carbon Filter       Sand Filtration       Reverse Osmosis       Other

If other, specify details:

## PUBLIC REPORTING

**Emergency Response & Contingency Plan (ERCP)**

**Is your ERCP up to Date?**       Yes       No

**How do you Inform the System Users of the ERCP?**

Hand Delivered       Bulletin Board       Newspaper       Utility Bill Insert       Website

Other (specify details) call in by customer

**Drinking Water System Annual Report****How do you Inform the System Users of the Annual Report?**

Hand Delivered       Bulletin Board       Newspaper       Utility Bill Insert       Website

Other call in by customer

**COMPLIANCE WITH OPERATING PERMIT**

*List the conditions of your Operating Permit (Contact the DWO for a copy if needed):*

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**Are you in compliance with your Operating Permit?**  Yes  No

**BACTERIOLOGICAL TESTING AND DRINKING WATER PROTECTION REGULATION WATER QUALITY STANDARDS**

**How many bacteriological samples were collected during this reporting period?** 50

**What is the minimum required sampling frequency for this system? (#samples/month)** 4

Additional sampling details:

**Was the minimum required sampling frequency achieved?**  Yes  No

Comments:

**Bacteriological summary attached to this report?**  Yes  No

**If no, how do the users of the system view the results?**

**WATER QUALITY STANDARDS FOR POTABLE WATER**

<b>Parameter:</b>	<b>Standard:</b>	<b>Did this system meet standard?</b>	
Escherichia coli (for all samples)	No detectable <i>Escherichia coli</i> per 100ml	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Total Coliform Bacteria (if only 1 sample collected in a 30 day period)	No detectable total coliform bacteria per 100ml	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Total Coliform Bacteria (if more than 1 sample collected in a 30 day period)	No more than 10% of samples contain total coliform bacteria, <b>and</b> No sample has more than 10 total coliform bacteria per 100m	<input type="checkbox"/>	<input type="checkbox"/>

**If the system did not meet any of above Drinking Water Protection Regulation standards, record the results in the table below; attach additional sheets if necessary.**

Date	TC/100ml	E.coli/100ml	Reason	Corrective Action

**CHEMICAL SAMPLING COMPLETED DURING THIS REPORTING PERIOD**

**Was any chemical sampling conducted during reporting period?**  Yes  No

**If no, when were the last chemical samples conducted for this system?** (date)  Don't Know  Never

**If yes, did all water samples meet the Guidelines for Canadian Drinking Water Quality?**  Yes  No

*If any water samples did not meet the Guidelines for Canadian Drinking Water Quality, record the results in the table below; attach additional sheets if necessary.*

Parameter	Result	Corrective Action / Treatment / Comments

**ADDITIONAL TESTING**

**Does the system have analyzers for continuous monitoring?**  Yes  No

*If yes, check all boxes that apply:*

Chlorine  Turbidity  Other (details)

**Are the results available on request?**yes

*If any additional testing or sampling was conducted, record results in the table below; attach additional sheets if necessary.*

Additional Testing & Reason for Sampling	Corrective Action Taken

**WATER QUALITY COMPLAINTS**

**Were there any water quality complaints in this reporting period? (e.g. taste, odour, colour etc.)**  Yes  No

*If yes, complete the table below; attach additional sheets if necessary.*

Date	Water Quality Complaint	Corrective Action / Treatment

**OPERATIONAL PROBLEMS**

Were there any operational problems during this reporting period? (e.g. insufficient water supply, malfunction of disinfection equipment, line breaks, elevated turbidity etc.).  Yes  No

If yes, complete the table below; attach additional sheets if necessary.

Incident Date	Type of Operational Problem	Corrective Action Taken

**MAJOR UPGRADES/REPAIRS & EXPENSES**

Were there any major upgrades/repairs or any major costs incurred during this reporting period?  Yes  No

If yes, complete the table below; attach additional sheets if necessary.

Major Upgrades/Expenses	Details
Improvements required by DWO	
Additions/changes to system	
Purchase or install new equipment	
Equipment repair or replacement	
Annual maintenance of system	Flushed system and hydrant and valve maintenance
Specialist report	
Other	

**FUTURE IMPROVEMENTS**

Are there any plans for future improvements?  Yes  No

If yes, complete the table below; attach additional sheets if necessary.

Future Upgrades or Improvements	Estimated Date of Completion

DATE COMPLETED: March 31 2021

COMPLETED BY: D. Roblin

## Sample Range Report

Fraser Health Authority

**Facility Name:** Morris Valley Bulk Water System

**Date Range:** Jan 1 2021 to Dec 31 2021

**Operator** Fraser Valley Regional District  
45950 Cheam Ave  
Chilliwack, BC V2P 1N6

<u>Sampling Site</u>	<u>Date Collected</u>	<u>Total Coliform</u>	<u>E. Coli</u>	<u>Fecal Coliform</u>
<u>Tapadera Estates</u>				
<u>Reservoir, 14700</u>				
<u>Morris Valley Road</u>				
	1-12-2021 9:45:00 AM	LT1	LT1	
	1-26-2021 11:15:00 AM	LT1	LT1	
	2-9-2021 11:15:00 AM	LT1	LT1	
	2-23-2021 10:15:00 AM	LT1	LT1	
	3-9-2021 11:45:00 AM	LT1	LT1	
	3-23-2021 11:25:00 AM	LT1	LT1	
	4-20-2021 12:40:00 PM	LT1	LT1	
	5-4-2021 12:00:00 PM	LT1	LT1	
	5-18-2021 11:20:00 AM	LT1	LT1	
	6-1-2021 11:45:00 AM	LT1	LT1	
	6-15-2021 11:15:00 AM	LT1	LT1	
	6-29-2021 12:30:00 PM	LT1	LT1	
	7-13-2021 11:35:00 AM	LT1	LT1	
	7-27-2021 12:15:00 PM	LT1	LT1	
	8-10-2021 12:00:00 PM	LT1	LT1	
	8-24-2021 11:00:00 AM	LT1	LT1	
	9-21-2021 11:30:00 AM	LT1	LT1	
	10-5-2021 11:00:00 AM	LT1	LT1	
	10-19-2021 11:15:00 AM	LT1	LT1	

11-2-2021 11:45:00 AM	LT1	LT1	
11-23-2021 7:50:00 AM	LT1	LT1	
12-14-2021 11:30:00 AM	<u>LT1</u>	<u>LT1</u>	
<b>Total Positive:</b>	<b>0</b>	<b>0</b>	<b>0</b>

**Result Values:**                      **E - estimated**                      **L - less than**                      **G - greater than**

Samples that contain total coliform:	0		0.00% of total
Samples that contain e. coli:	0		0.00% of total
Samples that contain fecal coliform:	0		0.00% of total
Number of consecutive samples that contain total coliform:	0		
Number of samples that contain total coliform in last 30 days:	0/0		
Total number of samples:	22		

**Comments:**

\_\_\_\_\_  
Environmental Health Officer  
Jan 27 2022

FOR FURTHER INFORMATION PLEASE CALL: David Fowler



## Sample Range Report

Fraser Health Authority

**Facility Name:** Morris Valley Bulk Water System

**Date Range:** Jan 1 2021 to Dec 31 2021

**Operator** Fraser Valley Regional District  
45950 Cheam Ave  
Chilliwack, BC V2P 1N6

Sampling Site	Date Collected	Total Coliform	E. Coli	Fecal Coliform
<u>Morris Valley</u> <u>Wellhead, 14600</u> <u>Morris Valley Rd</u>				
	1-5-2021 11:45:00 AM	LT1	LT1	
	1-19-2021 10:50:00 AM	LT1	LT1	
	2-2-2021 12:05:00 PM	LT1	LT1	
	2-16-2021 11:00:00 AM	LT1	LT1	
	3-2-2021 11:00:00 AM	LT1	LT1	
	3-16-2021 10:15:00 AM	LT1	LT1	
	3-30-2021 10:15:00 AM	LT1	LT1	
	4-6-2021 11:20:00 AM	LT1	LT1	
	4-13-2021 11:00:00 AM	LT1	LT1	
	4-27-2021 11:30:00 AM	LT1	LT1	
	5-11-2021 10:30:00 AM	LT1	LT1	
	5-25-2021 12:30:00 PM	LT1	LT1	
	6-8-2021 12:20:00 PM	LT1	LT1	
	6-22-2021 12:10:00 PM	LT1	LT1	
	7-6-2021 8:05:00 AM	LT1	LT1	
	7-20-2021 11:00:00 AM	LT1	LT1	
	8-3-2021 12:45:00 PM	LT1	LT1	
	8-17-2021 8:45:00 AM	LT1	LT1	
	8-31-2021 11:15:00 AM	LT1	LT1	
	9-7-2021 10:30:00	LT1	LT1	

AM		
9-14-2021 11:30:00	LT1	LT1
AM		
9-28-2021 11:45:00	LT1	LT1
AM		
10-12-2021 11:30:00	LT1	LT1
AM		
10-26-2021 11:35:00	LT1	LT1
AM		
11-9-2021 12:00:00	LT1	LT1
PM		
11-30-2021 11:45:00	LT1	LT1
AM		
12-7-2021 11:36:00	LT1	LT1
AM		
12-20-2021 9:30:00	<u>LT1</u>	<u>LT1</u>
AM		
<b>Total Positive:</b>	<b>0</b>	<b>0</b>

**Result Values:**                      E - estimated                      L - less than                      G - greater than

Samples that contain total coliform:	0	0.00% of total
Samples that contain e. coli:	0	0.00% of total
Samples that contain fecal coliform:	0	0.00% of total
Number of consecutive samples that contain total coliform:	0	
Number of samples that contain total coliform in last 30 days:	0/0	
Total number of samples:	28	

**Comments:**

\_\_\_\_\_  
Environmental Health Officer  
Jan 27 2022

FOR FURTHER INFORMATION PLEASE CALL: David Fowler

## Analytical Report

Bill To: Fraser Valley Regional District 1 - 45950 Cheam Ave. Chilliwack, BC, Canada V2P 1N6	Project ID: Chem/Phys Project Name: Northside Project Location: LSD: P.O.:	Lot ID: <b>1576666</b> Control Number: Date Received: Jun 7, 2022 Date Reported: Jun 13, 2022 Report Number: 2755677
Attn: Accounts Payable Sampled By: J. Vugteveen Company: FVRD	Proj. Acct. code:	

<b>Reference Number</b>	1576666-5
<b>Sample Date</b>	June 07, 2022
<b>Sample Time</b>	11:30
<b>Sample Location</b>	
<b>Sample Description</b>	Morris Valley / Morris WS
<b>Sample Matrix</b>	Drinking Water

Analyte	Units	Result	Nominal Detection Limit	Guideline Limit	Guideline Comments	
<b>Metals Extractable</b>						
Aluminum	Extractable mg/L	0.002	0.001	0.1 OG; 2.9 MAC	Below OG	
Antimony	Extractable mg/L	<0.00002	0.00002	0.006	Below MAC	
Arsenic	Extractable mg/L	<0.0001	0.0001	0.010	Below MAC	
Barium	Extractable mg/L	0.0024	0.0001	2.0	Below MAC	
Boron	Extractable mg/L	0.003	0.002	5	Below MAC	
Cadmium	Extractable mg/L	<0.00001	0.00001	0.007	Below MAC	
Chromium	Extractable mg/L	<0.00005	0.00005	0.05	Below MAC	
Copper	Extractable mg/L	0.0007	0.0005	1 AO; 2 MAC	Below AO	
Lead	Extractable mg/L	0.00010	0.00001	0.005	Below MAC	
Selenium	Extractable mg/L	<0.0002	0.0002	0.05	Below MAC	
Strontium	Extractable mg/L	0.0063	0.0001	7.0	Below MAC	
Uranium	Extractable mg/L	<0.00001	0.00001	0.02	Below MAC	
Vanadium	Extractable mg/L	0.00027	0.00005			
Zinc	Extractable mg/L	0.0039	0.0005	5.0	Below AO	
<b>Physical and Aggregate Properties</b>						
Colour	True	Colour units	<5	5		
Turbidity		NTU	<0.10	0.1	0.1/0.3/1.0 OG	
<b>Routine Water</b>						
pH - Holding Time			Exceeded			
pH	at 25 °C		6.68	0.01	7.0-10.5	Below Range
Electrical Conductivity		µS/cm at 25 °C	24	1		
Calcium	Extractable mg/L		2.9	0.01		
Iron	Extractable mg/L		<0.004	0.004	0.3	Below AO
Magnesium	Extractable mg/L		0.28	0.02		
Manganese	Extractable mg/L		<0.001	0.001	0.02 AO; 0.12 MAC	Below AO
Potassium	Extractable mg/L		<0.04	0.04		
Silicon	Extractable mg/L		3.3	0.005		
Sodium	Extractable mg/L		0.9	0.1	200	Below AO
T-Alkalinity	as CaCO3 mg/L		7	5		
Chloride	Dissolved mg/L		0.62	0.05	250	Below AO
Fluoride	Dissolved mg/L		0.06	0.01	1.5	Below MAC
Nitrate - N	Dissolved mg/L		0.07	0.01	10	Below MAC
Nitrite - N	Dissolved mg/L		<0.01	0.01	1	Below MAC
Sulfate (SO4)	Dissolved mg/L		1.5	0.1	500	Below AO
Hardness	as CaCO3 (extractable) mg/L		8.3	1		
Total Dissolved Solids	Extractable mg/L		20	1	500	Below AO